# CIVIL TECH LABS

Accredited by **NABL** as per ISO/ IEC 17025 : 2005

# 5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654


To,

Assistant Executive Engineer,
Hebbal Sub Division,
BBMP.

09th September 2013

Dear Sir,

**Sub:** Testing of Materials.

As requested, tests on physical properties were carried out for the Materials supplied by you, for the work of **'Providing flooring and improvements to Govt Model School in Ward No. 18.'**

Please find the enclosed Test Reports of the above.

**Thanking You,**
**For Civil Tech Labs**

**Lab Incharge**
**Civil Tech Labs**

CIVIL TECH LABS BANGALORE

# CIVILTECH LABS

## TEST REPORT ON FINE AGGREGATES Ref:IS:383/2386

| | |
|---|---|
| Name of the Client | AEE, Hebbal Sub Division, BBMP. |
| Name of Work | Providing flooring and improvements to Govt Model School in Ward No. 18. |
| Agency Name | Sri. Ramesh |

| Sample | Date of Testing | Specific Gravity | IS Sieve designation (mm) | Sieve Analysis (% Passing IS Sieve) | Grading Requirement As Per IS 383-1970 | | | | Grading Zone |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | ZONE-I | ZONE-II | ZONE-III | ZONE-IV | |
| Fine Aggregates | 09/09/2013 | 2.55 | 10 | 100 | 100 | 100 | 100 | 100 | II |
| | | | 4.75 | 98.6 | 90-100 | 90-100 | 90-100 | 95-100 | |
| | | | 2.36 | 84.2 | 60-95 | 75-100 | 85-100 | 95-100 | |
| | | | 1.18 | 65.3 | 30-70 | 55-90 | 75-100 | 90-100 | |
| | | | 0.6 | 48.2 | 15-34 | 35-59 | 60-79 | 80-100 | |
| | | | 0.3 | 22.1 | 5-20 | 8-30 | 12-40 | 15-50 | |
| | | | 0.15 | 7.9 | 0-10 | 0-10 | 0-10 | 0-15 | |

**Note:**

1. The results relate only to the items tested.
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3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the client.

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# CIVILTECH LABS

## TEST REPORT ON CEMENT

| | |
|---|---|
| Name of the Client | AEE, Hebbal Sub Division, BBMP. |
| Name of Work | Providing flooring and improvements to Govt Model School in Ward No. 18. |
| Agency Name | Sri. Ramesh |

| Tests on Cement | Test Date | Tests | Test Method As Per IS & Apparatus | | Results | | Requirements As Per IS 8112 1989 | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | IS Code | Method | Value | Unit | | |
| | 09/09/2013 | Initial Setting Time | **IS-4031 (Part-5) 1988** | VICAT | 49 | min | Not Less Than 30 Minutes | Satisfies Requirement |
| | | Final Setting Time | **IS-4031 (Part-5) 1988** | VICAT | 489 | min | Not More Than 600 Minutes | Satisfies Requirement |
| | | Soundness | **IS-4031 (Part-3) 1988** | LE-CHATELIER | 4 | mm | Not More Than 10 mm | Satisfies Requirement |

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# CIVILTECH LABS

## TEST REPORT ON COARSE AGGREGATES 40mm ↓ Graded Ref:IS:383/2386

| | |
|---|---|
| Name of the Client | AEE, Hebbal Sub Division, BBMP. |
| Name of Work | Providing flooring and improvements to Govt Model School in Ward No. 18. |
| Agency Name | Sri. Ramesh |

| Sample | Date of Testing | Specific Gravity | Absorption in % | IS Sieve designation (mm) | Sieve Analysis (% Passing IS Sieve) | Grading Requirement As Per IS 383-1970 | Remarks |
|---|---|---|---|---|---|---|---|
| 40mm Down Graded | 09/09/2013 | 2.66 | 0.29 | 80 | 100 | 100 | Satisfies The Requirements |
| | | | | 40 | 99.1 | 95-100 | |
| | | | | 20 | 55.3 | 30-70 | |
| | | | | 10 | 23.9 | 10-35 | |
| | | | | 4.75 | 3.3 | 0-5 | |

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## TEST REPORT ON COARSE AGGREGATES 20mm ↓ Graded Ref:IS:383/2386

| | |
|---|---|
| Name of the Client | AEE, Hebbal Sub Division, BBMP. |
| Name of Work | Providing flooring and improvements to Govt Model School in Ward No. 18. |
| Agency Name | Sri. Ramesh |

| Sample | Date of Testing | Specific Gravity | Absorption in % | IS Sieve Designation (mm) | Sieve Analysis (% Passing IS Sieve) | Grading Requirement As Per IS 383-1970 | Remarks |
|---|---|---|---|---|---|---|---|
| 20mm Down Graded | 09/09/2013 | 2.62 | 0.33 | **40** | 100 | **100** | Satisfies The Requirement |
| | | | | **20** | 98.6 | **95-100** | |
| | | | | **10** | 44.1 | **25-55** | |
| | | | | **4.75** | 8.2 | **0-10** | |

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## TEST REPORT ON REINFORCEMENT STEEL BARS 10mm

| | |
|---|---|
| Name of the Client | AEE, Hebbal Sub Division, BBMP. |
| Name of Work | Providing flooring and improvements to Govt Model School in Ward No. 18. |
| Agency Name | Sri. Ramesh |
| Date of Testing | 09/09/2013 |

| Sl.No. | Description | Result | IS 1786-1985 Min. Requirements | Remarks |
|---|---|---|---|---|
| 1 | Measured Diameter mm | 10 | 10 | Satisfactory |
| 2 | Wt/m Length (Kg/m) | 0.618 | 0.617 | Satisfactory |
| 3 | Bend & RebendTest | Pass | Should not Crack or Fracture | Satisfactory |
| 4 | Elongation (%) | 14.9 | 14.5 | Satisfactory |
| 5 | Yield Stress(N/Sq.mm) | 421 | 415 | Satisfactory |
| 6 | U T S (N/Sq.mm) | 526 | 485 | Satisfactory |

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# CIVIL TECH LABS

TEST ON BRICKS Ref: IS:1077:1993(Rev 5)

| | |
|---|---|
| Name of the Client | AEE, Hebbal Sub Division, BBMP. |
| Name of Work: | Providing flooring and improvements to Govt Model School in Ward No. 18. |
| Agency Name | Sri. Ramesh |

| Sl. No. | Date of Test | Description | Result | Specifications | Remarks |
|---|---|---|---|---|---|
| 1 | 09/09/2013 | Compressive Strength (in N/Sq.mm) | 5.25 | Class Designation 5 (Avg Compressive Strength Should not be Less Than 5 N/Sq.mm) | Satisfies Requirement |
| 2 | | Water Absorption '%' | 16.8 | Max. 20 % | Satisfies Requirement |

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T-2654


To,

Assistant Executive Engineer,
Hebbal Sub Division,
BBMP.

09th October 2013

Dear Sir,

**Sub:** Providing flooring and improvements to Govt Model School in Ward No. 18. Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Reports of the above.

Thanking you,

**For Civil Tech Labs,**

**Lab Incharge**
**Civil Tech Labs**

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# CIVIL TECH LABS

## TEST REPORT ON CONCRETE CUBES

| | |
|---|---|
| **Name of the Client** | AEE, Hebbal Sub Division, BBMP. |
| Project | Providing flooring and improvements to Govt Model School in Ward No. 18. |
| **Agency** | Sri. Ramesh |
| **Grade of Concrete** | M-20 |
| **No. of cubes tested** | 3 |
| **Dimension of Specimen** | 150mmx150mmx150mm |
| **Cross Sectional Area** | 22500 Sq.mm |
| **Technical Reference** | IS: 516-1959( Reaffirmed 2004) |

| Sl.No | Identification | Date of Casting | Date of Testing | Age at test (Days) | Weight (Kg) | Failure Load (KN) | Compressive Strength (N/Sq.mm) | Avg Compressive Strength (N/Sq.mm) |
|---|---|---|---|---|---|---|---|---|
| 1 | CC-Work | 11/09/2013 | 09/10/2013 | 28 | 8.20 | 490 | 21.78 | 22.00 |
| 2 | | | | | 8.19 | 495 | 22.00 | |
| 3 | | | | | 8.22 | 500 | 22.22 | |

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